

# **RECLAMATION ON THE CHEAP: VIRGINIA'S IMPLEMENTATION OF THE AML ENHANCEMENT RULE<sup>1</sup>**

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**Abstract.** Recognizing the vast needs for abandoned mine land (AML) reclamation and the finite resources available, the Office of Surface Mining (OSM) in 1999 established an innovative means to increase the amount of reclamation accomplished. OSM revised its definition of government-financed construction to allow less than 50% government funding when the construction was part of an approved AML project. Through this, AML contractors have been able to recover incidental coal on projects and have proceeds from sales largely offset the cost of reclamation. Since 2000, Virginia has commenced reclamation on 11 AML enhancement projects. Virginia has experienced considerable savings through enhancement and has been able to reclaim sites that, absent enhancement, would probably never be reclaimed.

Additional Key Words: (government financed exemption, incidental coal removal, consultations)

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## **Introduction**

Recognizing the need to accomplish additional reclamation of abandoned mine lands with limited resources, the federal Office of Surface Mining (OSM) in 1999 revised the definition of government financed construction with respect to abandoned mine land construction. The revision decreased the percentage of government financing necessary to allow incidental coal removal to occur and be exempt from permitting requirements of Title V of the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The revision has become widely known as abandoned mine land (AML) enhancement.

OSM maintains an inventory of abandoned mine land features throughout the United States. With SMCRA's intent for AML reclamation to focus on extreme dangers and human health and safety features, it is likely that many lower priority and environmental problems will never be reclaimed. This likelihood is increasingly apparent with the uncertainty of continuing fee collection to fund AML reclamation. Implementing AML enhancement allows states and tribes a means to significantly increase the amount of reclamation with a minimal amount of financing.

Virginia began implementing AML enhancement in 2000 with the Buchanan County Park Highwall Elimination Project. This project accomplished the elimination of 3200 feet of Priority 2 dangerous highwall, with an estimated savings of over \$200,000 to the state's AML program. Using AML enhancement, Virginia continues to accomplish reclamation of priority 2 and 3 features, especially on gob pile features.

## **Project Implementation**

AML enhancement is particularly suited to abating acid mine drainage, highwall elimination, and reclamation of coal waste or gob piles. On such features, there is often a remnant amount of coal remaining but this amount is not economically feasible to recover through re-mining. Virginia maintains an inventory of potential enhancement candidates and widely distributes this to prospective contractors.

Upon selecting an AML feature to reclaim through AML enhancement, Virginia AML staff initiates the agency consultations required through the National Environmental Policy Act (NEPA). Often, several potential enhancement projects are consolidated into a single NEPA consultation letter. State and federal agencies have thirty days to submit comments on the projects.

Concurrently with the NEPA consultations, Title V and Title IV personnel make certain findings and determinations required by the enhancement rules.

These findings include a determination that there is little likelihood that the site would be remined and reclaimed stand alone as a permitted operation. Also, it is necessary to show that reclamation will not create additional problems or interfere with adjacent permitted mining operations. All coal removal must be an engineering necessity, i.e., physically necessary for site reclamation. Removal is limited to incidental coal and boundaries of coal removal must be shown on appropriate maps.

Preparation and submission of the NEPA document follow the protocol for routine AML projects. Eligibility documentation and inventory markups accompany the NEPA submittal. OSM reviews and can comment on the document, with approval coming with the issuance of the Authorization to Proceed. Immediately prior to this, the AML inventory is updated by moving the feature from unfunded to funded in the ENH program area of the Abandoned Mine Land Inventory System (AMLIS).

For its enhancement projects, Virginia plants trees as the government financing of the construction project. This cost averages \$500 per acre.

Virginia requires the prospective contractor to obtain all rights of entry. The contractor is also required to provide proof of an agreement for payment of royalties to the surface owner. As with any project, the contractor is required to submit bond, liability insurance, and show that the company is eligible to obtain an AML contract.

There is risk and reward inherent for all enhancement projects. Virginia does not make any statement as to the quality or quantity of coal the contractor might recover incidental to the reclamation project.

### **Construction**

Construction on an AML enhancement project begins with installation of sediment control measures. Excavation typically follows with recovery of incidental coal. On gob piles, this is done through the use of a shaker/screen that separates material based on size. The unmarketable coarse material is required to be used to eliminate any adjacent highwalls. If there are no highwalls in the vicinity, the contractor has the option of placing the material in a designed fill or trucking the material to a permitted Title V site for disposal.

Excavation and removal of gob piles proceeds to natural ground. For highwall elimination, a suitable growing medium is left on the surface. To the extent practical, the plans require the adherence to guidelines of the Appalachian Regional Reforestation Initiative. Virginia returns the contractor's bond and releases the project upon successful establishment of vegetation. Inspectors routinely visit the site during construction to monitor compliance with the plans and specifications.

Upon receipt of the final inspection report, AML personnel move the enhancement feature to completed in AMLIS.

### **Virginia Results**

Through AML enhancement, Virginia has accomplished significant reclamation of AML features that otherwise would likely never have been reclaimed. The accomplishments include elimination of 3200 feet of dangerous highwall and the reclamation of over 30 acres of barren and eroding gob piles. This reclamation has allowed the Virginia program an estimated cost savings of over \$500,000. As of August 2006, there are four ongoing enhancement projects and numerous projects under consideration.



Figure 1. Barren and eroding gob pile prior to initiation of AML enhancement.



Figure 2. Gob pile after completion of enhancement; savings estimated at \$65,000.